CULTURAL RESOURCES SURVEY OF THE SOUTH BUCKWALTER TRACT, BEAUFORT COUNTY, SOUTH CAROLINA

CHICORA RESEARCH CONTRIBUTION 342

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ABSTRACT

This report provides the results of a cultural resources investigation of a 430 acre tract situated in southern Beaufort County, about 1.5 miles northwest of Bluffton. The study was conducted by Dr. Michael Trinkley of Chicora Foundation for Centex Homes and is intended to assist Centex comply with Section 106 of the National Historic Preservation Act and the regulations codified in 36CFR800.

The tract, which borders an existing golf course, is to be used for construction of single family dwellings. The area surrounding the survey tract is also being developed into neighborhoods for this rapidly growing portion of Beaufort County.

The proposed undertaking will require the clearing of the tract, followed by construction of various infrastructure elements, such as roads, stormwater drainage, and utilities. Individual lot construction will involve grading, additional utility construction, and subsequent building of structures. These activities have the potential to affect archaeological and historical sites and this survey was conducted to identify and assess archaeological and historical sites which may be in the project tract. For this study an area of potential effect (APE) 1.0 mile around the proposed tract was assumed. It should be noted that several surveys have been conducted within only a few miles of the project area.

Consultation with the S.C. Department of Archives and History revealed no previously identified NRHP sites or previously surveyed architectural sites within the 1.0 mile APE. An investigation of the archaeological site files at the S.C. Institute of Archaeology and Anthropology identified three sites, 38BU1589, 38BU1590, and 38BU1833, within the 1.0 mile APE with one site, 38BU1589, directly bordering the proposed tract. Sites 38BU1589-1590 represent an early twentieth century scatter of artifacts while 38BU1833 produced artifacts dating to the eighteenth century mixed with Middle to Late Woodland period pottery. All three sites were recommended not eligible for inclusion on the National Register of Historic Places.

The archaeological study of the tract incorporated shovel testing at 100-foot intervals on transects which were placed at 100-foot intervals. All shovel test fill was screened through ¼-inch mesh and the shovel tests were backfilled at the completion of the study. A total of 1,079 shovel tests were excavated with 709 shovel tests at 100-foot intervals, 345 shovel tests placed at 200-foot intervals, and 25 additional tests for the identified site 38BU1946.

One archaeological site, 38BU1946, was identified as a result of these investigations. The site consists of a twentieth century surface and subsurface domestic scatter. The site is recommended not eligible for inclusion on the National Register of Historic Places, based on the extensive logging and erosion which has taken place in the area. Site 38BU1946 lacks the ability to address significant research questions and no additional management activities are recommended, pending the review of the lead agency and the State Historic Preservation Office.

A survey of public roads within 1.0 mile of the survey area was conducted in an effort to identify any architectural sites over 50 years old which also retained their integrity. No such structures were located.

It is possible that archaeological remains may be encountered in the project area during construction. Construction crews should be advised to report any discoveries of concentrations of artifacts (such as bottles, ceramics, or projectile points) or brick rubble to the project engineer, who should in turn report the material to the State Historic Preservation Office or to Chicora Foundation (the process of dealing with late discoveries is discussed in 36CFR800.13(b)(3)). No construction should take place in the vicinity of these late discoveries until they have been examined by an archaeologist

and, if necessary, have been processed according to 36CFR800.13(b)(3).

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

INTRODUCTION

This investigation was conducted by Dr. Michael Trinkley of Chicora Foundation, Inc. for Mr. Jeff Wiggins of Centex Homes in Bluffton, SC. The work was conducted to assist Centex comply with Section 106 of the National Historic Preservation Act and the regulations codified in 36CFR800.

The project site consists of a 430 acre tract proposed to be used for the construction of a neighborhood of single family dwellings located northwest of Bluffton (Figure 1). The survey area is irregular in shape with portions bordering wetlands to the west, a powerline right-of-way to the north, and several logging roads (Figure 2). An existing golf course is found to the north and east, and a new Beaufort County School is present at the southern edge of the parcel.

The tract consists of fairly flat areas with some areas of low wetlands. The survey encountered mostly planted pines, but some areas contained young hardwood and various underbrush. The surrounding area, while less than 8 miles from Hilton Head Island, still remains fairly rural, but development is occurring rapidly.

The tract, as previously mentioned, is intended to be used for construction of a neighborhood of single family homes. This work will require the construction of utilities, such as electrical lines and sewer, as well as an expanded road system when development begins. Construction will also involve activities associated with individual home sites. There will likely be increased short-term noise, traffic, and dust levels associated with the project. These activities have the potential to cause extensive damage to any archaeological resources which may be present on the tract.

This study, however, does not consider any future secondary impact of the project, including increased or expanded development of this portion of Beaufort County.

We were requested by Mr. Jeff Wiggins of Centex Homes to provide a technical and budgetary proposal for the survey in September of 2001. This proposal was accepted shortly thereafter and work began on October 15, 2001.

Initial background investigations incorporated a review of the site files at the South Carolina Institute of Archaeology and Anthropology by Chicora Foundation. As a result of that work, three sites (38BU1589, 38BU1590, and 38BU1833) were identified within the APE. These sites were recommended not eligible for inclusion on the National Register.

In addition, the South Carolina Department of Archives and History GIS was consulted to check for any NRHP buildings, districts, structures, sites, or objects in the study area. Beaufort County has received a recent comprehensive architectural survey (Harvey et al. 1998), so it is likely that these records are complete. No NRHP sites were found within a mile of the survey, nor did the background check reveal any previously recorded architectural sites in the project area. The GIS did, however, show four tracts (totaling 1,690 acres) within 5 miles of the survey area, which had been recently surveyed for similar residential areas.

Archival and historical research was limited to a review of secondary sources available in the Chicora Foundation files.

The archaeological survey was conducted on October 15-26, 2001 by Mr. Tom Covington, Ms. Nicole Southerland, and Dr. Michael Trinkley. The architectural survey of the project APE was conducted at the same time by Dr. Michael Trinkley. Report production was conducted at Chicora's laboratories in Columbia, South Carolina from November 5-9, 2001.

This report details the investigation of the project area undertaken by Chicora Foundation

Figure 1. Project vicinity in Beaufort County (basemap is USGS South Carolina 1:500,000).

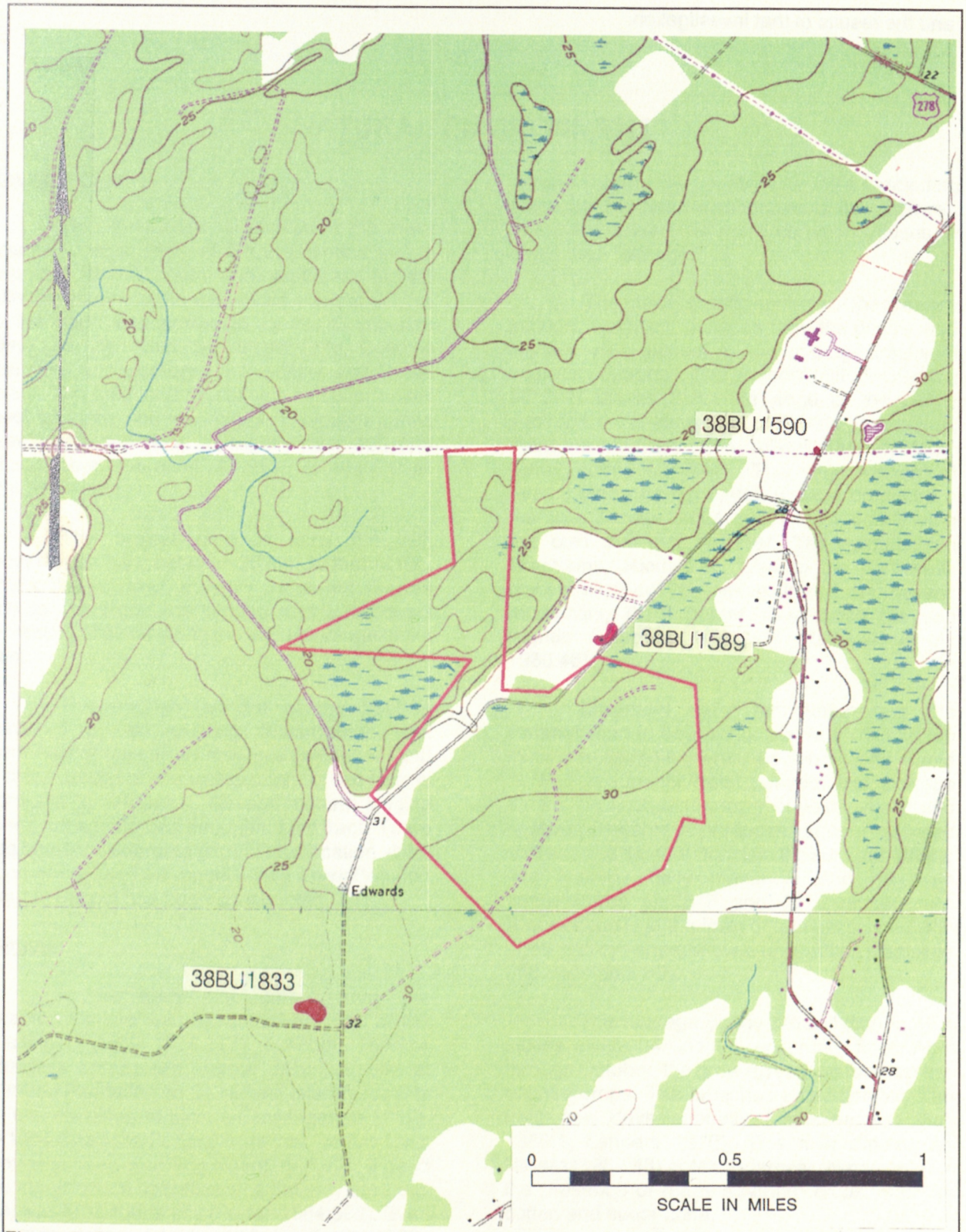

Figure 2. Survey area with previously identified sites (basemap is USGS Jasper and Prichardville 7.5')

and the results of that investigation.

NATURAL ENVIRONMENT

Physiography

Beaufort County is located in the lower Atlantic Coastal Plain of South Carolina and is bounded to the south and southeast by the Atlantic Ocean, to the east by St. Helena Sound, to the north and northeast by the Combahee River, to the west by Jasper and Colleton counties, and portions of the New and Broad rivers. The mainland primarily consists of nearly level lowlands and low ridges. Elevations range from about sea level to slightly over 100 feet above mean sea level (AMSL) (Mathews et al. 1980:134-135).

The project area is fairly flat with elevations staying between 20 and 30 feet AMSL. This data, however, may be somewhat skewed due to the extensive logging and subsequent replanting of pines along the entire acreage of the tract.

The northern portion of the tract is bordered by an existing transmission line. Northeast of the survey area is a golf course and a small portion of the western part of the tract is bordered by wetlands. Several modern logging roads run around and throughout the tract. There has been considerable ground modification at the southern edge of the parcel where a new Beaufort County School has been constructed.

Climate

In the early nineteenth century the Beaufort climate was described as "one of the healthiest" (Mills 1826:377), although Thomas Chaplin's antebellum journal describing life at Tombee Plantation on St. Helena Island presents an entirely different picture (Rosengarten 1987). In 1864 Charlotte Forten wrote that "yellow fever prevailed to an alarming extent, and that, indeed the manufacture of coffins was the only business that was at all flourishing (Forten 1864:588). Even a cursory review of death certificates for the 1920s reveals that the low country was still a foreboding place. Brights disease, tuberculosis, typhoid fever, and malaria were all more common causes of death than "old age."

The major climatic controls of the area are latitude, elevation, distance from the ocean, and location with respect to the average tracks of migratory cyclones. The project's latitude of about 32°20'N places it on the edge of the balmy subtropical climate typical of Florida. As a result, there are relatively short, mild winters and long, warm, humid summers. The large amount of nearby warm ocean water surface produces a maritime climate, which tends to moderate both the cold and hot weather. The Appalachian Mountains, about 220 miles to the northwest, block shallow cold air masses from the northwest, moderating them before they reach the sea islands (Landers 1970:2-3; Mathews et al. 1980:46).

Maximum daily temperatures in the summer tend to be near or above 90°F and the minimum daily temperatures tend to be about 68°F. The summer water temperatures average 83°F. The abundant supply of warm, moist and relatively unstable air produces frequent scattered shatters and thunderstorms in the summer. Winter has average daily maximum and minimum temperatures of 63°F and 38°F respectively. Precipitation is in the form of rain associated with fronts and cyclones; snow is uncommon (Janiskee and Bell 1980:1-2).

The average yearly precipitation is 49.4 inches, with 34 inches occurring from April through October, the growing season for most low country crops. The area has approximately 285 frost free days annually (Janiskee and Bell 1980:1; Landers 1970). This mild climate, as Hilliard (1984:13) notes, is largely responsible for the presence of many southern crops, such as cotton and sugar cane.

While the temperatures along this area of the coast are not extreme, the relative humidity is frequently high enough to produce muggy conditions in the summer and dank conditions in the winter. Relative humidity ranges from about 63-89% in the summer to 58-83% in the winter. The highest relative humidity occurs in the morning and as the temperature increases, the humidity tends to decline (Landers 1970:11; Mathews et al. 1980:46).

The coastal area is at a moderately high risk of tropical storms, with 169 hurricanes being documented from 1686 through 1972 (Mathews et al. 1980:56). The last Category 5 hurricane which hit this area was the August 27, 1893 storm which had winds of 120 miles per hour and a storm surge of 17 to 19.5 feet. Over 1,000 people in South Carolina were reported killed by this storm (Mathews et al. 1980:55). Other notable historic storms have occurred in 1700, 1752, 1804, 1813, and 1885.

Geology and Soils

The coastal region is covered in sands and clays originally derived from the Appalachian Mountains and which are organized into coastal, fluvial, and aeolian deposits. These were transported to the coast during the Quaternary period and were deposited on bedrock of the Mesozoic Era and Tertiary period. These sedimentary bedrock formations are only occasionally exposed on the coast, although they frequently outcrop along the fall line (Mathews et al. 1980:2). The bedrock in the Beaufort area is below a level of 1640 feet (Smith 1933:21).

The Pleistocene sediments are organized into topographically distinct, but lithologically similar terraces parallel to the coast. These terraces have elevations ranging from 215 feet down to sea level. The terraces, representing previous sea floors, were apparently formed at high stands of the fluctuating, though falling, Atlantic Ocean and consist chiefly of sand and clay (Cooke 1936). More recently, research by Colquhoun (1969) has refined the theory of formation processes, suggesting a more complex origin involving both erosional and depositional processes operating during marine transgressions and regression.

The mainland soils are Pleistocene in age and tend to have more distinct horizon development and diversity than the younger soils of the Sea Islands. Sandy to loamy soils predominate in the level to gently sloping mainland areas.

Most of this portion of Beaufort County is dominated by the broad soil series of Wando-Seabrook-Seewee soils. These soils can range from moderately well drained to somewhat poorly

Figure 3. Planted Pines on survey tract.

Figure 4. Wetland savannah located on survey tract.

drained soils that are sandy throughout (Stuck 1980). According to the 1980 soil survey, five soils are present in the survey area. Of these, only the Seabrook soils are classified as well drained, with a water table typically 2.0 to 4.0 feet below the surface during wet periods. The Seewee soils are classified as somewhat poorly drained and while flooding is rare, the seasonal high water table may be no deeper than 2.0 feet. Both the Cape Fear and Rosedhu soils are identified as very poorly drained. The Rosedhu soils may exhibit a seasonal water table from 0 to 1.0 foot below the ground surface, while the Cape Fear soils may exhibit standing surface water to depths of 0.5 foot. The Barafari soils are classified as poorly drained and, like the Rosedhu soils, may exhibit seasonal water tables within a foot of the surface.

Cape Fear soils consist of a black (10YR2/1) loam A1 horizon to a depth of 0.8 foot over a very dark gray (10YR3/1) clay loam to a depth of 1.3 feet. Rosedhu fine sands occur as linear fingers or drainages in the project area with a black (10YR2/1) surface layer over a dark reddish brown (5YR3/2) layer to a depth of 1.4 feet.

The Seewee soils have a very dark brown (10YR2/2) fine sand Ap horizon about 0.7 foot in depth over an A12 horizon of dark grayish brown sand (10YR4/2) to 1.3 feet. This grades into a pale brown (10YR5/6) sands found to depths of over 2.0 feet. The Baratari sands generally have an A horizon of black (10YR2/1) sand to 0.4 foot over a light gray (10YR6/1) sand to almost a foot. Below is a B horizon of dark reddish brown (5YR2/2) sand to a depth of just under 2.0 feet.

The best drained Seabrook soils have an Ap horizon of about 0.9 foot consisting of dark grayish brown (10YR4/2) fine sand. Below is a C horizon of light yellowish brown (10YR6/4) sand to over 2.0 feet below grade.

Because of the extensive logging and silvacultural activities on the property it was difficult to recognize these individual soil series. In fact, most profiles revealed a dark grayish brown (10YR4/2) fine sand varying in depth from 0.5 to 1.5 feet over a lighter sand subsoil.

Floristics

Originally the entire tract was likely dominated by mixed hardwoods, particularly live oak and palmetto on the higher soils. These areas would likely have been very similar to maritime forests. On the lower, inland soils there were likely areas of what today are called "Florida Scrub" — pine flatwoods which often have slight depressions and ridges characterized by a dense woody pocosin understory. There would also have been some limited areas of wetland swamps with tupelo, bay, and ash.

Robert Mills, discussing Beaufort District in the early nineteenth century, stated:

> besides a fine growth of pine, we have the cypress, red cedar, and live oak . . . white oak, red oak, and several other oaks, hickory, plum, palmetto, magnolia, poplar, beech, birch, ash, dogwood, black mulberry, etc. Of fruit trees we have the orange, sweet and sour, peach, nectarine, fig, cherry (Mills 1826:377).

He also cautioned, however, that "some parts of the district are beginning already to experience a want of timber, even for common purposes" (Mills 1826:383) and suggested that at least 25% of a plantation's acreage should be reserved for woods.

Almost the entire survey tract consists of planted pines (Figure 3), although the areas between the pines have started to exhibit young hardwoods and a thick undergrowth of various species. A small portion of the survey tract consists of wetland areas with dense undergrowth and a savannah-like area (Figure 4) was also encountered.

The silvacultural activities on the tract have resulted in considerable ground modifications. Because the soils are so wet, ridges have been created to get the pine seedlings out of standing water. Ranging between a foot and nearly 2.0 feet in height, these ridges result in considerable damage to the existing soil profiles.

PREHISTORIC AND HISTORIC SYNTHESIS

Previous Research

There have been a number of studies prepared for the Beaufort area, and Derting et al. (1991:47-77) list 225 in their bibliography of South Carolina archaeology. Previous work in the immediate area includes four cultural resources studies from 1999-2001 by Brockington and Associates, Inc. for similar projects (Figure 5). The first project involved a 323 acre tract of land located about 1,200 feet northwest of the current survey area (Fletcher et al. 1999). This tract, entitled the *Villages at Buckwalter*, uncovered one prehistoric site (38BU1828) and four isolated finds. Three of the isolated finds produced prehistoric sherds while the last find uncovered some historic whiteware and glass fragments. 38BU1828 contained artifacts from the Middle Woodland and Mississippian periods. All of these were recommended not eligible for inclusion on the National Register of Historic Places.

The second survey, conducted immediately after the previous survey, examined the Buckwalter Access Road Tract (Fletcher and Harvey 1999). This project included a 35 acre parcel of land with a 4,000 foot road which connected the 35 acre tract with the Villages at Buckwalter tract to the south. As a result of the survey, no cultural resources were identified.

The Meggett Tract, surveyed in 1996 and 1999, encompassed approximately 1,130 acres just south of the Okatee River (Eubanks and Harvey 1996 and Bridgman et al. 2000). Of the eight sites uncovered, one (38BU1652) contained only prehistoric artifacts, five (38BU1649, 38BU1650, 38BU1651, 38BU1835, and 38BU1856) include both historic and prehistoric components, and two (38BU1653 and 38BU1654) are shell middens from unknown cultural periods. All but two of these sites (38BU1650 and 38BU1856) were recommended not eligible for inclusion on the National Register. 38BU1650 was recommended potentially eligible under Criterion D, the ability to better understand the history of the area. Site 38BU1856 was recommended eligible for inclusion on the National Register of Historic Places, also under Criterion D. Six isolated finds, containing both historic and prehistoric artifacts, were also identified.

The final survey examined the D.R. Horton Tract, located about 4,000 feet southeast of the current survey area (Bridgman and Hendrix 2001). This tract consists of approximately 184 acres of land. One isolated find consisting of five mendable prehistoric pottery sherds was uncovered. This find was recommended not eligible for inclusion on the National Register.

The three previously recorded sites near the current survey area represent historic sites surveyed by Brockington and Associates, Inc. during two different investigations. The first survey, performed in 1995, uncovered two historic sites, 38BU1589 and 38BU1590. Both sites have a twentieth century component including artifacts of clear glass, cobalt blue glass, unidentified iron objects, and brick. 38BU1589 also uncovered milk glass, light green glass, nails, and oyster shell. Both sites are located in a heavily damaged area of cultivated fields and were recommended not eligible for inclusion on the National Register of Historic Places.

The third site, 38BU1833, was recorded from a survey performed in 1999. This site uncovered both an eighteenth century scatter of mostly colonoware and a Middle to Late Woodland period lithic and ceramic scatter. Like the other two sites, the integrity of 38BU1833 had been destroyed by cultivation, logging, and construction of a nearby school. Due to the disturbance, this site was also recommended not eligible for inclusion on the National Register.

A general prehistoric chronology for the region is provided in Figure 6.

Figure 5. Current survey tract (shown in red) with four previous surveys by Brockington and Associates (shown in blue) (basemap is USGS Jasper and Prichardville 7.5').

For the historic period there are an equal number of studies that provide broad overviews. Harvey and his colleagues provide a general view of Beaufort County (Harvey et al. 1998). The area where the tract is located seems to have lacked a significant amount of historic activity. More history is known for nearby Hilton Head Island. Even the 1937 *General Highway and Transportation Map of Beaufort County* (see Figure 9) shows structures only along the road systems and absolutely no activity beyond the roads.

Prehistoric Synthesis

The Paleoindian period, lasting from 12,000 to 8,000 B.C., is evidenced by basally thinned, side-notched projectile points; fluted, lanceolate projectile points; side scrapers; end scrapers; and drills (Coe 1964; Goodyear et al. 1989; Michie 1977; Williams 1968). The Paleoindian occupation, while widespread, does not appear to have been intensive. Artifacts are most frequently found along major river drainages, which Michie interprets to support the concept of an economy "oriented towards the exploitation of now extinct mega-fauna" (Michie 1977:124).

Sea level during much of this period is expected to have been as much as 65 feet lower than present, so many sites may be inundated (Flint 1971). Unfortunately, little is known about Paleoindian subsistence strategies, settlement systems, or social organization. Generally archaeologists agree that the Paleoindian groups were at a band level of society, were nomadic, and were both hunters and foragers. While population density, based on the isolated finds, is thought to have been low, Walthall suggests that

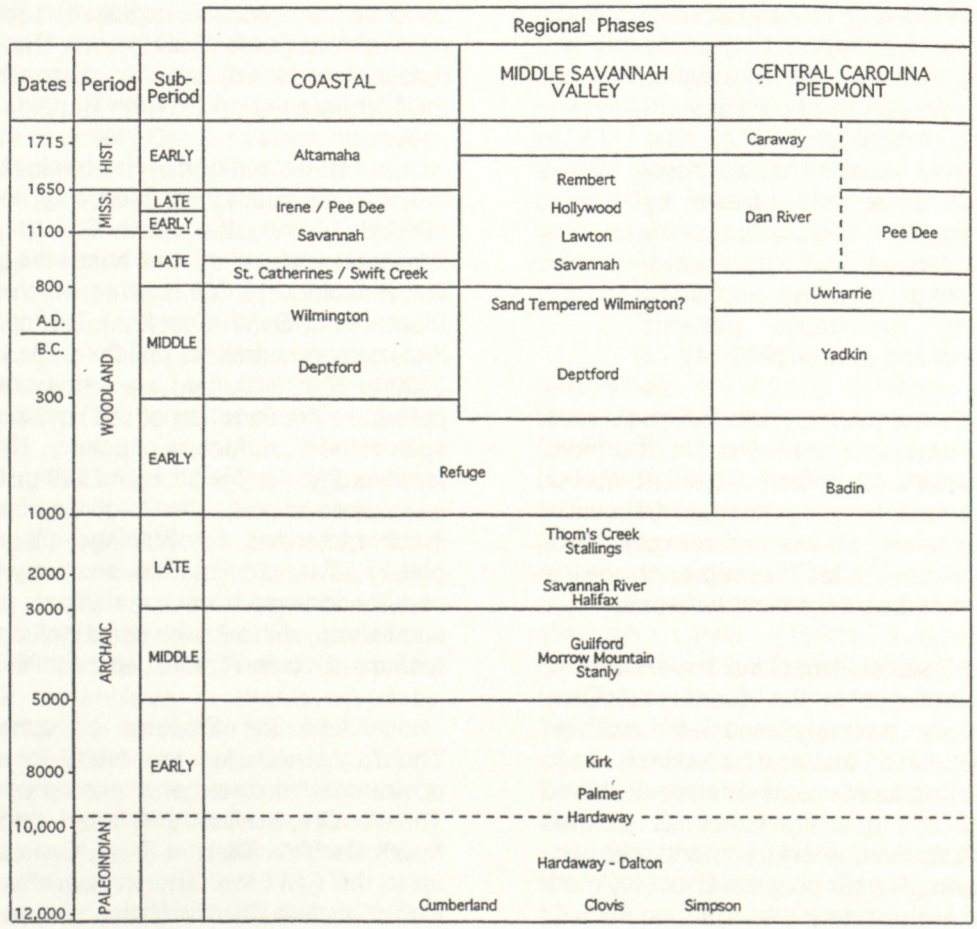

Figure 6. Generalized cultural periods for South Carolina.

toward the end of the period, "there was an increase in population density and in territoriality and that a number of new resource areas were beginning to be exploited" (Walthall 1980:30).

The Archaic period, which dates from 8000 to 2000 B.C., does not form a sharp break with the Paleoindian period, but is a slow transition characterized by a modern climate and an increase in the diversity of material culture. The chronology established by Coe (1964) for the North Carolina Piedmont may be applied with little modification to the South Carolina coast. Archaic period assemblages are rare in the Sea Island region, although the sea level is anticipated to have been within 13 feet of its present stand by the beginning of the succeeding Woodland period (Lepionka et al. 1983:10). Brooks and Scurry note that:

> Archaic period sites, when contrasted with the subsequent Woodland period, are typically small, relatively few in number and contain low densities of archaeological material. The data may indicate that the inter-riverine zone was utilized by Archaic populations characterized by small group size, high mobility, and wide ranging exploitative patterns (Brooks and Scurry 1978:44).

Alternatively, the general sparsity of Archaic sites in the coastal zone may be the result of a more attractive environment inland adjacent to the floodplain swamps of major drainages. Of course, this is not necessarily an alternative explanation, since coastal Archaic sites may represent only a small segment in the total settlement system.

In the Coastal Plain of the South Carolina there is an increase in the quantity of Early Archaic remains, probably associated with an increase in population and associated increase in the intensity of occupation. While Hardaway and Dalton points are typically found as isolated specimens along riverine environments, remains from the following Palmer phase are not only more common, but are also found in both riverine and interriverine settings. Kirks are likewise common in the coastal plain (Goodyear et al. 1979).

The two primary Middle Archaic phases found in the coastal plain are the Morrow Mountain and Guilford (the Stanly and Halifax complexes identified by Coe are rarely encountered). Our best information on the Middle Woodland comes from sites investigated west of the Appalachian Mountains, such as the work in the Little Tennessee River Valley. The work at Middle Archaic river valley sites, with their evidence of a diverse floral and faunal subsistence base, seems to stand in stark contrast to Caldwell's Middle Archaic "Old Quartz Industry" of Georgia and South Carolina, where axes, choppers, and ground and polished stone tools are very rare.

The Late Archaic is characterized by the appearance of large, square stemmed Savannah River projectile points (Coe 1964). These people continued the intensive exploitation of the uplands much like earlier Archaic groups. The bulk of our data for this period, however, comes from work in the Uwharrie region of North Carolina.

The Woodland period begins by definition with the introduction of fired clay pottery about 2000 B.C. along the South Carolina coast (the introduction of pottery, and hence the beginning of the Woodland period, occurs much later in the Piedmont of South Carolina). It should be noted that many researchers call the period from about 2500 to 1000 B.C. the Late Archaic because of a perceived continuation of the Archaic lifestyle in spite of the manufacture of pottery. Regardless of terminology, the period from 2500 to 1000 B.C. is well documented on the South Carolina coast and is characterized by Stallings (fiber-tempered) pottery. The subsistence economy during this early period was based primarily on deer hunting and fishing, with supplemental inclusions of small mammals, birds, reptiles, and shellfish.

Like the Stallings settlement pattern, Thom's Creek sites are found in a variety of environmental zones and take on several forms. Thom's Creek sites are found throughout the South Carolina Coastal Zone, Coastal Plain, and up to the Fall Line. The sites are found into the North Carolina Coastal Plain, but do not appear to extend southward into Georgia.

In the Coastal Plain drainage of the Savannah River there is a change of settlement, and probably subsistence, away from the riverine focus found in the Stallings Phase (Hanson 1982:13; Stoltman 1974:235-236). Thom's Creek sites are more commonly found in the upland areas and lack evidence of intensive shellfish collection. In the Coastal Zone large, irregular shell middens, small, sparse shell middens; and large "shell rings" are found in the Thom's Creek settlement system.

The Deptford phase, which dates from 1100 B.C. to A.D. 600, is best characterized by fine to coarse sandy paste pottery with a check stamped surface treatment. The Deptford settlement pattern involves both coastal and inland sites.

Inland, sites such as 38AK228-W, 38LX5, 38RD60, and 38BM40 indicate the presence of an extensive Deptford occupation on the Fall Line and the Coastal Plain, although sandy, acidic soils preclude statements on the subsistence base (Anderson 1979; Ryan 1972; Trinkley 1980). These interior or upland Deptford sites, however, are strongly associated with the swamp terrace edge, and this environment is productive not only in nut masts, but also in large mammals such as deer. Perhaps the best data concerning Deptford "base camps" comes from the Lewis-West site (38AK228-W), where evidence of abundant food remains, storage pit features, elaborate material culture, mortuary behavior, and craft specialization has been reported (Sassaman et al. 1990:96-98).

Throughout much of the Coastal Zone and Coastal Plain north of Charleston, a somewhat different cultural manifestation is observed, related to the "Northern Tradition" (e.g., Caldwell 1958). This recently identified assemblage has been termed Deep Creek and was first identified from northern North Carolina sites (Phelps 1983). The Deep Creek assemblage is characterized by pottery with medium to coarse sand inclusions and surface treatments of cord marking, fabric impressing, simple stamping, and net impressing. Much of this material has been previously designated as the Middle Woodland "Cape Fear" pottery originally typed by South (1976). The Deep Creek wares date from about 1000 B.C. to A.D. 1 in North Carolina, but may date later in South Carolina. The Deep Creek settlement and subsistence systems are poorly known, but appear to be very similar to those identified with the Deptford phase.

The Deep Creek assemblage strongly resembles Deptford both typologically and temporally. It appears this northern tradition of cord and fabric impressions was introduced and gradually accepted by indigenous South Carolina populations. During this time some groups continued making only the older carved paddle-stamped pottery, while others mixed the two styles, and still others (and later all) made exclusively cord and fabric stamped wares.

The Middle Woodland in South Carolina is characterized by a pattern of settlement mobility and short-term occupation. On the southern coast it is associated with the Wilmington phase, while on the northern coast it is recognized by the presence of Hanover, McClellanville or Santee, and Mount Pleasant assemblages. The best data concerning Middle Woodland Coastal Zone assemblages comes from Phelps' (1983:32-33) work in North Carolina. Associated items include a small variety of the Roanoke Large Triangular points (Coe 1964:110-111), sandstone abraders, shell pendants, polished stone gorgets, celts, and woven marsh mats. Significantly, both primary inhumations and cremations are found.

On the Coastal Plain of South Carolina, researchers are finding evidence of a Middle Woodland Yadkin assemblage, best known from Coe's work at the Doerschuk site in North Carolina (Coe 1964:25-26). Yadkin pottery is characterized by a crushed quartz temper and cord marked, fabric impressed, and linear check stamped surface treatments. The Yadkin ceramics are associated with medium-sized triangular points, although Oliver (1981) suggests that a continuation of the Piedmont Stemmed Tradition to at least A.D. 300 coexisted with this Triangular Tradition. The Yadkin series in South Carolina was first observed by Ward (1978, 1983) from the White's Creek drainage in Marlboro County, South Carolina. Since then, a large Yadkin village has been identified by DePratter at the Dunlap site (38DA66) in Darlington County, South Carolina (Chester DePratter, personal communication 1985) and Blanton et al. (1986) have excavated a

small Yadkin site (38SU83) in Sumter County, South Carolina. Research at 38FL249 on the Roche Carolina tract in northern Florence County revealed an assemblage including Badin, Yadkin, and Wilmington wares (Trinkley et al. 1993:85-102). Anderson et al. (1982:299-302) offer additional typological assessments of the Yadkin wares in South Carolina.

Over the years the suggestion that Cape Fear might be replaced by such types as Deep Creek and Mount Pleasant has raised considerable controversy. Taylor, for example, rejects the use of the North Carolina types in favor of those developed by Anderson et al. (1982) from their work at Mattassee Lake in Berkeley County (Taylor 1984:80). Cable (1991) is even less generous in his denouncement of ceramic constructs developed nearly a decade ago, also favoring adoption of the Mattassee Lake typology and chronology. This construct, recognizing five phases (Deptford I - III, McClellanville, and Santee I), uses a type variety system.

Regardless of terminology, these Middle Woodland Coastal Plain and Coastal Zone phases continue the Early Woodland Deptford pattern of mobility. While sites are found all along the coast and inland to the Fall Line, shell midden sites evidence sparse shell and artifacts. Gone are the abundant shell tools, worked bone items, and clay balls. Recent investigations at Coastal Zone sites such as 38BU747 and 38BU1214, however, have provided some evidence of worked bone and shell items at Deptford phase middens (see Trinkley 1990).

In many respects the South Carolina Late Woodland may be characterized as a continuation of previous Middle Woodland cultural assemblages. While outside the Carolinas there were major cultural changes, such as the continued development and elaboration of agriculture, the Carolina groups settled into a lifeway not appreciably different from that observed for the previous 500 to 700 years (cf. Sassaman et al. 1990:14-15). This situation would remain unchanged until the development of the South Appalachian Mississippian complex (see Ferguson 1971).

The South Appalachian Mississippian Period (ca. A.D. 1100 to 1640) is the most elaborate level of culture attained by the native inhabitants and is followed by cultural disintegration brought about largely by European disease. The period is characterized by complicated stamped pottery, complex social organization, agriculture, and the construction of temple mounds and ceremonial centers. The earliest phases include the Savannah and Pee Dee (A.D. 1200 to 1550).

Historic Synopsis

The British Proprietory Period

British influence in the New World began in the fifteenth century with the Cabot voyages, but the southern coast did not attract serious attention until King Charles II granted Carolina to the Lords Proprietors in 1663. In August 1663 William Hilton sailed from Barbados to explore the Carolina territory, spending a great deal of time in the Port Royal area (Holmgren 1959). Almost chosen for the first English colony, Hilton Head Island was passed over by Sir John Yeamans in favor of the more protected Charles Town site on the west bank of the Ashley River in 1670 (Clowse 1971:23-24; Holmgren 1959:39).

Like other European powers, the English were lured to the New World for reasons other than the acquisition of land and promotion of agriculture. The Lords Proprietors, who owned the colony until 1719-1720, intended to discover a staple crop whose marketing would provide great wealth through the mercantile system, which was designed to profit the mother country by providing raw materials unavailable in England (Clowse 1971). Charleston was settled by English citizens, including a number from Barbados, and by Huguenot refugees. Black slaves were brought directly from Africa, as well as Barbados.

The Charleston settlement was moved from the mouth of the Ashley River to the junction of the Ashley and Cooper Rivers in 1680, but the colony was a thorough disappointment to the Proprietors. It failed to grow as expected, did not return the anticipated profit, and failed to evidence workable local government (Ferris 1968:124-125). The early economy was based almost exclusively on Indian trade, naval stores, lumber, and cattle.

Rice began emerging as a money crop in the late seventeenth century, but did not markedly improve the economic well-being of the colony until the eighteenth century (Clowse 1971).

Meanwhile, Scottish Covenanters under Lord Cardross established Stuart's Town on Scot's Island (Port Royal) in 1684, where it existed for four years until destroyed by the Spanish. It was not until 1698 that the area was again occupied by the English. Both John Stuart and Major Robert Daniell took possession of lands on St. Helena and Port Royal islands. The town of Beaufort was founded in 1711 although it was not immediately settled.

While most of the Beaufort Indian groups were persuaded to move to Polawana Island in 1712, the Yemassee, part of the Creek Confederacy, revolted in 1715. By 1718 the Yemassee were defeated and forced southward to Spanish protection. Consequently, the Beaufort area, known as St. Helena Parish, Granville County, was for the first time relatively safe from both the Spanish and the Indians. The Yemassee, however, continued occasional raids into South Carolina, such as the 1728 destruction of the Passage Fort at Bloody Point on Daufuskie Island (Starr 1984:16). In the same year the English raid on St. Augustine succeeded in breaking the Spanish influence and the remnant Indian groups made peace with the English. The results for the Beaufort area, however, were mixed. While there was a semblance of peace, frontier settlements were largely deserted, population growth was slow, and the Indian trade was diverted from Beaufort to Savannah.

The British Colonial Period

Although peace marked the Carolina colony, the Proprietors continued to have disputes with the populace, primarily over the colony's economic stagnation and deterioration. In 1727 the colony's government virtually broke down when the Council and the Commons were unable to agree on legislation to provide more bills of credit (Clowse 1971:238). This, coupled with the disastrous depression of 1728, brought the colony to the brink of mob violence. Clowse notes that the "initial step toward aiding South Carolina came when the proprietors were eliminated" in 1720 (Clowse 1971:241).

While South Carolina's economic woes were far from solved by this transfer, the Crown's Board of Trade began taking steps to remedy many of the problems. A new naval store law was passed in 1729 with possible advantages accruing to South Carolina. In 1730 the Parliament opened Carolina rice trade with markets in Spain and Portugal. The Board of Trade also dealt with the problem of the colony's financial solvency (Clowse 1971:245-247). Clowse notes that these changes, coupled with new land policies, "allowed the colony to go into an era of unprecedented expansion" (Clowse 1971:249). South Carolina's position was buttressed by the settlement of Georgia in 1733.

By 1730 the colony's population had risen to about 30,000 individuals, 20,000 of whom were black slaves (Clowse 1971:Table 1). The majority of these slaves were used in South Carolina's expanding rice industry. In the 1730 harvest year 48,155 barrels of rice were reported, up 15,771 barrels or 33% from the previous year (Clowse 1971:Table 3). Although rice was grown in the Beaufort area, it did not become a major crop in South Carolina until after the Revolutionary War. Rice was never a significant crop on the Beaufort Sea Islands, where ranch farming was favored because of its economic returns and favorable climate (Starr 1984:26-27). Elsewhere, however, rice monoculture shaped the social, political, and economic systems which produced and perpetuated the coastal plantation system prior to the rise of cotton culture.

Although indigo was known in the Carolina colony as early as 1669 and was being planted the following year, it was not until the 1740s that it became a major cash crop (Huneycutt 1949). While indigo was difficult to process, its success was partially due to it being complementary to rice. Huneycutt notes that planters were "able to 'dovetail' the work season of the two crops so that a single gang of slaves could cultivate both staples" (Huneycutt 1949:18). Indigo continued to be the main cash crop of South Carolina until the Revolutionary War fatally disrupted the industry.

During the Revolutionary War the British

occupied Charleston for over two and one-half years (1780-1782). A post was established in Beaufort to coordinate forays into the inland waterways after Prevost's retreat from the Battle of Stono Ferry (Federal Writer's Project 1938:7; Rowland 1978:288). British earthworks were established around Port Royal and on Ladys Island (Rowland 1978:290). The removal of the royal bounties on rice, indigo, and naval stores caused considerable economic chaos during and after the war with the eventual "restructuring of the state's agricultural and commercial base" (Brockington et al. 1985:34).

The Antebellum Period

While freed of Britain and her mercantilism, the new United States found its economy thoroughly disrupted. There was no longer a bounty on indigo, and in fact Britain encouraged competition from the British and French West Indies and India "to embarrass her former colonies" (Huneycutt 1949:44). As a consequence the economy shifted to tidewater rice production and cotton agriculture. Lepionka notes that "long staple cotton of the Sea Islands was of far higher value than the common variety (60 cents a pound compared to 15 cents a pound in the late 1830s) and this became the major cash crop of the coastal islands" (Lepionka et al. 1983:20). It was cotton, in the Beaufort area, that brought a full establishment of the plantation economy. Lepionka concisely states that:

> [t]he cities of Charleston and Savannah and numerous smaller towns such as Beaufort and Georgetown were supported in their considerable splendor on this wealth . . . . An aristocratic planter class was created, but was based on the essential labor of black slavery without which the plantation economy could not function. Consequently, the demographic pattern of a black majority first established in colonial times was reinforced (Lepionka et al. 1983:21).

Mills, in 1826, provides a thorough commentary on the Beaufort District noting that:

> Beaufort is admirably situated for commerce, possessing one of the finest ports and spacious harbors in the world . . . . There is no district in the state, either better watered, of more extended navigation, or possessing a larger portion of rich land, than Beaufort: more than one half of the territory is rich swamp land, capable of being improved so as to yield abundantly (Mills 1972 [1826]:367).

Describing the Beaufort islands, Mills comments that they were "beautiful to the eye, rich in production, and withal salubrious" (Mills 1972 [1826]:372). Land prices ranged from $60 an acre for the best, $30 for "second quality," and as low as 25 cents for the "inferior" lands. Grain and sugarcane were cultivated in small quantities for home use while:

> [t]he principal attention of the planter is . . . devoted to the cultivation of cotton and rice, especially the former. The sea islands, or salt water lands, yield cotton of the finest staple, which commands the highest price in market; it has been no uncommon circumstance for such cotton to bring $1 a pound. In favorable seasons, or particular spots, nearly 300 weight has been raised from an acre, and an active field hand can cultivate upwards of four acres, exclusive of one acre and half of corn and ground provisions (Mills 1972 [1826]:368.

Reference to the 1860 agricultural census reveals that of the 891,228 acres of farmland, 274,015 (30.7%) were improved. In contrast, only 28% of the State's total farmland was improved, and only 17% of the neighboring Colleton District's farm land was improved. Even in wealthy Charleston District only 17.8% of the farm land was improved (Kennedy 1864:128-129). The cash value of Beaufort farms was $9,900,652, while the state average by county was only

$4,655,083. The value of Beaufort farms was greater than any other district in the state for that year, and only Georgetown listed a greater cash value of farming implements and machinery (perhaps reflecting the more specialized equipment needed for rice production).

The record of wealth and prosperity, such as it was, is tempered by the realization that it was based on the racial imbalance typical of Southern slavery. In 1820 there were 32,199 people enumerated in Beaufort District, 84.9% of whom were black (Mills 1972 [1826]:372). While the 1850 population had risen to 38,805, the racial breakdown had changed little, with 84.7% being black (83.2% were slaves). Thus, while the statewide ratio of free white to black slave was 1:1.4, the Beaufort ratio was 1:5.4 (DeBow 1853:338). Mills' *Atlas* from 1845, however, shows the tract in an area which had not yet been settled (Figure 7).

Civil War and the Postbellum

Hilton Head Island fell to Union forces on November 7, 1861 and was occupied by the Expeditionary Corps under the direction of General T.W. Sherman. Beaufort, deserted by the Confederate troops and the white towns-people, was occupied by the Union forces several weeks later. A single white person, who remained loyal to the Federal government, was found on Ladys Island (Johnson 1969:189). Hilton Head became the Headquarters for the Department of the South and served as the staging area for a variety of military campaigns. A brief sketch of this period, generally accurate, is provided by Carse (1981). As a result of Hilton Head and Beaufort's early occupation by Union forces, all of the plantations fell to military occupation, a large number of blacks flocked to the area, and a "Department of Experiments" was born. An excellent account of the "Port Royal Experiment" is provided by Rose (1964), while the land policies on St. Helena are explored by McGuire (1985).

Perhaps the best Civil War map of the region is the *Map of the Rebel Lines of the Pocotaligo, Combahee and Ashepoo*, often called the Pre map. Dated 1865, it shows the countryside close to the end of the war (Figure 8). While there are a number of plantation settlements along the Colleton River marsh, the project area is shown in dense forest. Only a few tracts south of what is today US 278 are shown cultivated, and these are consistently along the May River. This map suggests that even the antebellum the project area was thought of as too wet to support cultivation without considerable ditching and drainage.

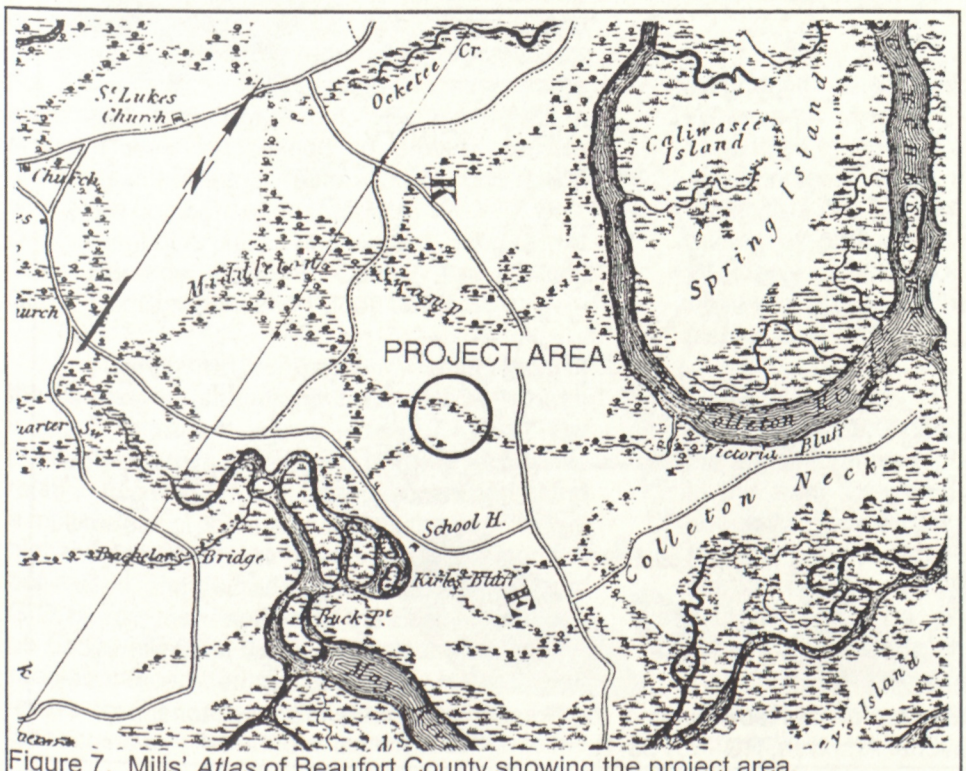

Figure 7. Mills' *Atlas* of Beaufort County showing the project area.

Trinkley (1986) has examined the freedmen village of Mitchelville on Hilton Head Island. One result of the Mitchelville work was to document how little is actually known about the black heritage and postbellum history of the sea islands. Even

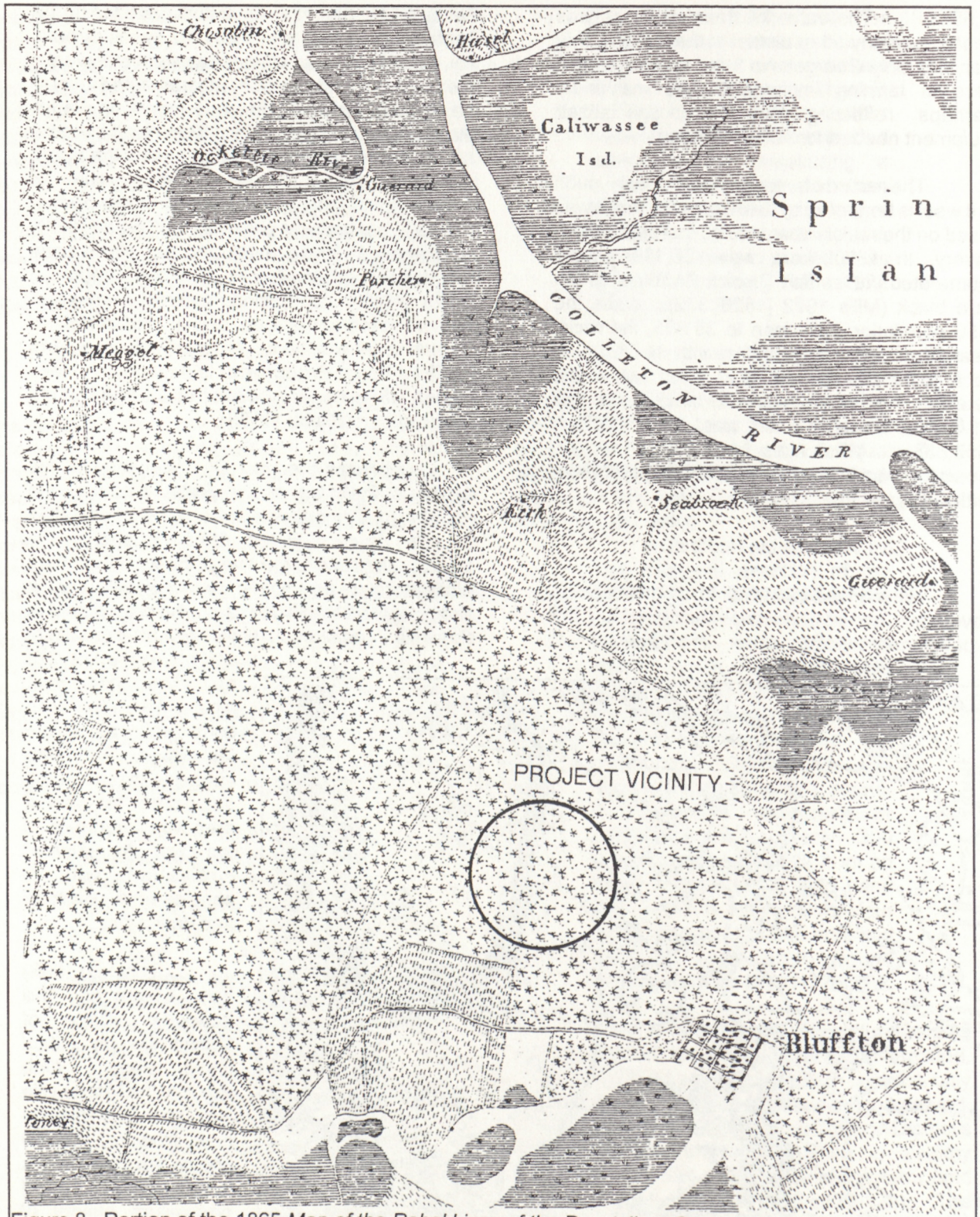

Figure 8. Portion of the 1865 *Map of the Rebel Lines of the Pocotaligo, Combahee, and Ashepoo, South Carolina* (National Archives, RG 77, I 53-1).

the social research spearheaded by the University of North Carolina's Institute for Research in Social Science at Chapel Hill in the early twentieth century (e.g. Johnson 1969, Woofter 1930) failed to record much of the activities on islands such as Hilton Head.

McGuire (1982, 1985) provides a detailed account of the land policies in the area during the Civil War and her studies should be consulted for detailed information. In general, however, blacks slowly came to own a large proportion of the available land. Certificates of possession were eventually issued for a number of the sea island plantations (McGuire 1982:36). During the postbellum period previous owners slowly came forward to reclaim, or redeem, land confiscated by the Federal government. The 1872 redemption process was not totally successful, partially because some tracts had such low value. By the 1890s a program was established to provide owners unsuccessful at either restoration or redemption with token compensation (McGuire 1982:77; S.C. Department of Archives and History, Secretary of State Records, Beaufort County Tax Claims, Direct Tax Compensation Book IX/2/4/3B).

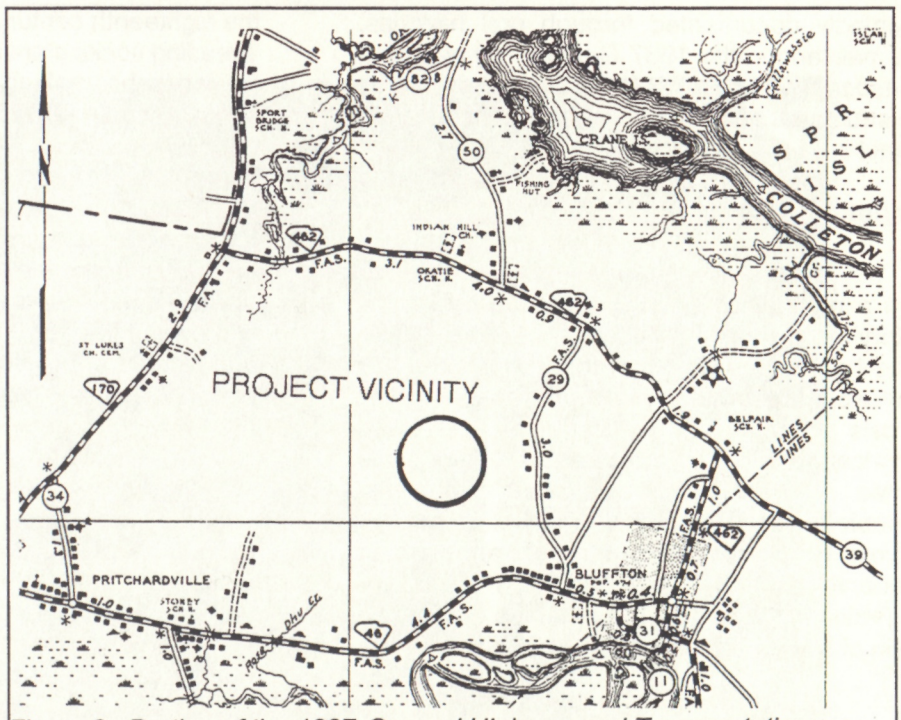

Figure 9. Portion of the 1937 *General Highway and Transportation map of Beaufort* showing the project area.

During the late nineteenth century most of the sea island plantations continued as a rural, isolated agrarian communities. The new plantation owners attempted to forge an economic relationship with the free black laborers and found a multitude of problems, including the need to pay higher wages, increasing problems with the cotton boll weevil, and decreasing fertility. The letters of G.C. Hardy, the manager of the Eustis Plantation on Ladys Island in the 1870s, clearly reveal the problems faced during this period. Hardy, in his letters to Frederic Eustis, discusses the rising labor costs and the serious losses of cotton to the boll weevil (South Caroliniana Library, Frederic A. Eustis Collection).

In the 1870s a new form of livelihood was introduced — the mining of phosphate for fertilizer. While both land and river rock mining were conducted in South Carolina, the Beaufort area saw primarily river dredging to acquire the phosphate ore present as gravel, although land mining of phosphate nodules also took place (Mathews et al. 1980:27, 31). As the industry began to decline in the early twentieth century, blacks returned to agriculture and oyster factories.

Woofter (1930) provides information on the agricultural practices of the St. Helena blacks in the early twentieth century, noting that the population was largely stable, with most blacks remaining in the vicinity of their parents' "home" plantations (Woofter 1930:265). While islands, such as St. Helena, which were large and easily accessible began to change more rapidly during this period, the smaller, more isolated islands, such as Hilton Head, maintained very clear connections with the past which have been

repeatedly documented through oral histories. The mainland in the 1937 *General Highway and Transportation Map of Beaufort County* still shows few structures off the main roads and none in the project area (Figure 9).

Synoptic History of the Study Tract

The study tract has been cobbled together from a number of smaller parcels. Tracing the history of the property is made even more difficult since the Beaufort County records prior to the Civil War were destroyed. Moreover, many of the parcels in this part of Beaufort County — historically part of St. Lukes Parish — were never platted. Perhaps the tracts were simply not valuable enough to either warrant expensive surveys or perhaps they didn't change hands frequently enough to make surveys necessary. Regardless, attempting to determine a complete chain of title for the property is very difficult.

Most authorities agree that the general area was part of the Oketee Barony (Smith 1988). Careful inspection of his reconstructed map for the barony suggests that the southeastern half of the study parcel was within this barony. The remainder likely fell into what Smith identifies as the Duke of Beaufort's Barony and perhaps Violet Bush Plantation. We've focused on the southeastern half of the property since the records for this portion are most complete.

Smith observes that Sir John Colleton drew the Oketee Barony on December 5, 1718. He points out that it was located between the May River to the south and the Colleton River to the north (Smith 1988:86). We see that these two rivers served as anchors or focal points for the eventual plantation developments and the further inland from one of these rivers, the less likely that any substantive settlement took place.

Regardless, on September 28, 1726 Colleton transferred the barony to his son, Peter. At Peter Colleton's death ca. 1748, the property appears to have been passed to his broth, the Honorable John Colleton of Fairlawn barony. John Colleton died in 1750 and the barony was then passed to his son, Peter, who died in 1756 (Smith 1988:87-88). It seems that the barony wasn't put into any significant production until the middle of the eighteenth century, when it was set up for the 'breeding flocks planting rice corn and other grain sawing timber making pitch tar turpentine Indigo & other commercial commodities thereon" (Smith 1988:88).

With the death of Peter Colleton in 1756 the Oketee barony was passed to John Colleton and Smith notes that under this last Colleton the "barony seems to have been well developed and improved" (Smith 1988:88). The focus on indigo and cattle production were common for this time period, but the American Revolution seems to have wrecked havoc on both. The bounty on indigo was lost and the marauding British armies took most of the cattle, with Smith observing that the tract was "largely swept clear of its labour in the shape of slave, and of its provisions and buildings" (Smith 1988:88).

When John Colleton died in 1777 the barony probably passed to his only daughter, Louisa Carolina Colleton, although Smith notes that land was already being sold off. But upon her death, it appears that the barony was cut up into more manageable tract. The Rose Hill and Hunting Island tracts were created for James Kirk, Camp was sold to Mrs. Pinckney and Izard, Foot Point and Ferry plantations were sold to John Stoney, and the Fording Island tract was sold to W.J. Grayson. Smith suggests that these tracts may all have some origin as early operating tracts or fields in the larger barony, although it was unlikely that there was ever a major Colleton settlement on the barony (since their family settlement was Fairlawn).

The history for the study tract between ca. 1780 and 1840 is unknown. We do know, however, that in 1845 a 900 acre tract of land, called Linden Plantation, was sold by Thomas E. Screven, trustee of William M. Pelot and his wife, Elvira, to Nathaniel P. Crowell of Beaufort. Crowell held the tract through the Civil War — although as seen in Figure 10 there appears to be virtually no activity or development on the plantation. After the Civil War, perhaps crushed by the economy, Crowell sold the plantation on February 26, 1870 to Anna G. Robertson of nearby Chatham County, Georgia (Beaufort County Register of Deeds, DB 4, pg. 407). That deed specifies that the plantation was bounded to the north by lands of James Kirk,

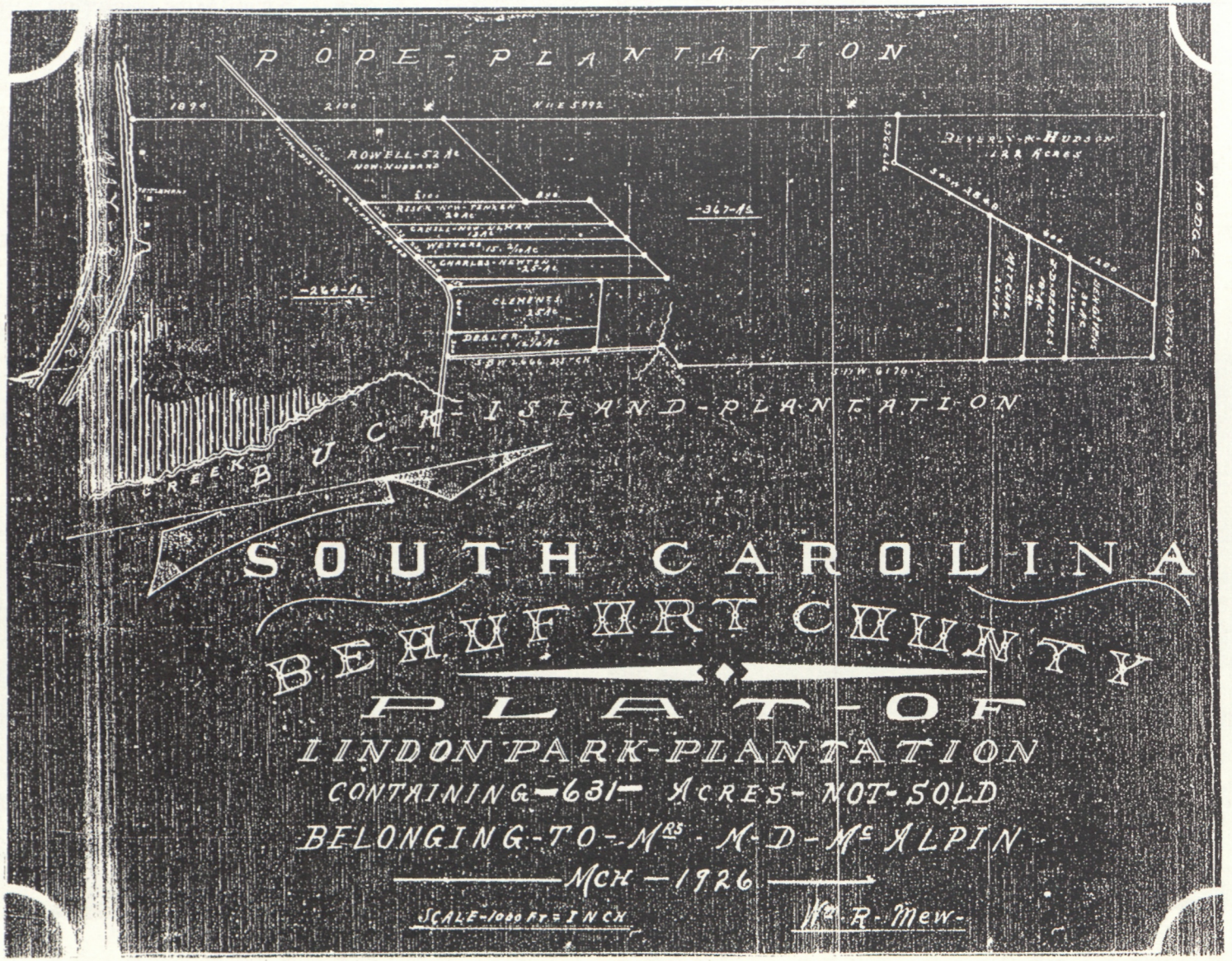

Figure 10. 1926 Mew plat of Linden Plantation (Beaufort County Judgement Roll 3144).

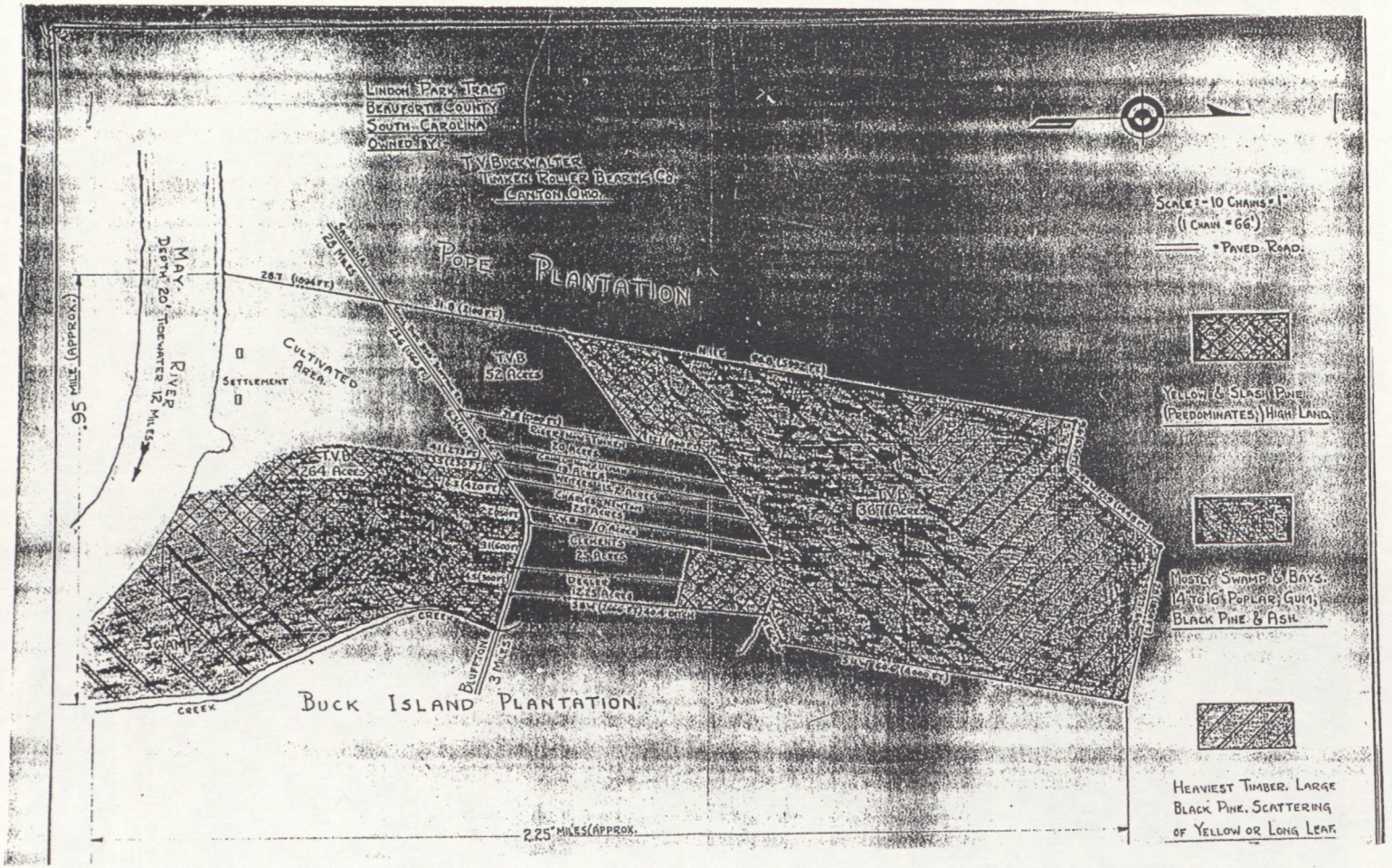

Figure 11. Buckwalter survey of the Linden Park Plantation tract (Beaufort County Register of Deeds, Plat Book 5, page 55).

to the east by lands of Archibald Longworth, to the south on the May River, and to the east on the estate of William Pope.

Robertson held the property for just over two years. It appears that she use the plantation to secure a loan from a Joseph F.P. Hodson of New York. In April 1872 Robertson, who by that time was living in Bluffton, was forced to forfeit the plantation for sale and it was acquired by Alfred C. Post, also of New York (Beaufort County Register of Deeds, DB 6, pg. 282). Post appears to have operated the plantation until his death in February 1886. During this time period it was not unusual for out of state, usually northern, interests to acquire and operate low country plantations. Unfortunately, one of the few histories, Powell's (1980) *New Masters*, fails to make any specific reference to Post.

On October 24, 1887 Post's executors sold the plantation, still being described as Linden and consisting of 900 acres, to Thomas R. Heyward (Beaufort County Register of Deeds, DB 16, pg. 438). Heyward operated the plantation for nearly 10 years, selling it to A.C. McAlpin for the modest sum of $3,000 on July 23, 1896 (Beaufort County Register of Deeds, DB 21, pg. 260). Just over a year later, in November 1897 McAlpin sells the property to his wife, Mary D. McAlpin, for $1,300 (Beaufort County Register of Deeds, DB 22, pg. 268). The property is still known as Linden Plantation and the property description has not substantively changed from the time of the Civil War. It appears that sometime around the turn the century the property became entangled in a dispute over a trust established for Mary D. McAlpin (Mary D. McAlpin v. A. Champion McAlpin et al., Beaufort County Judgement Roll 3144). Although the events surrounding this dispute were not examined in detail, the suit did preserve the earliest plat of Linden Plantation.

Figure 11 shows what by this time is known as Linden Park Plantation, consisting of two tracts totaling 631 acres. Additional acreage on the north side of the Bluffton Road had been sold off, as had additional lots at the northern edge of the plantation. If all of these tracts are added back into Linden, its actual acreage would slightly exceed 980 acres — an error typical of the period. What is far more important about this plat is that, first, it reveals that the parcel did include much of the study tract — virtually all of the southeastern half of the Centex property. The plat is also important for several other reasons. First, it reveals that the main settlement is adjacent to the May River, in an area of high, well drained Wando soils. This would be the perfect, healthful area for a plantation settlement and today it has been subdivided into a number of long lots stretching from the river northward to the Bluffton Road. No other settlements are shown on the parcel. Second, the plat reveals that the property boundaries are still largely recognized in terms of early nineteenth century neighbors. To the west, for example, is "Pope's Plantation," while to the east is "Buck Island Plantation." And finally, this plat is also important since it suggests that the single historic site found during the survey may be associated with a small historic parcel, shown to be owned by Ben Givens.

Seemingly as a result of the suit the portion of the property north of the Bluffton Road was sold in August 1926 to Tracy V. Buckwalter (Beaufort County Register of Deeds, DB 43, pg. 422) for $3,670. Buckwalter, apparently associated with Timken Roller Bearing Co. of Canton, Ohio, was amassing a number of tracts in the area during this period. While plats of relatively few of these parcels have survived, Linden Park is one of the few for which Buckwalter's interest is clearly documented. Figure 11 shows a timber map of the parcel (including the portion south of Bluffton Road, which he also eventually acquired). It shows that the only cultivated area was along the May River — on the high, well drained property around the settlement. Elsewhere the tract was primarily in timber and it was this that interested Buckwalter. His timber map reveals that the plantation included yellow and slash pines on the high lands; poplar, gum, and black pine on the swamp and bay land; and that the heaviest timber, consisting of large black pine with scattered yellow or long-leaf pine, was found in the study area, toward the north end of the plantation. The focus of Buckwalter's operations was forestry — saw mill timber and turpentine. This explains evidence on the study tract of extensive — in intensive — periods of logging.

Sometime around 1941 Buckwalter sold his property, including Linden Park, to Union

Camp. This deed, specified as Deed Book C, page 283, however, has not been found since neither Beaufort nor Jasper counties have a deed book C. Regardless, Union Camp merged with International Paper in April 1999 and International Paper sold what by that time was known as the Buckwalter tract (by that time consisting of about 29,264 acres) to a subsidiary, SP Forests, in June 1999 (Beaufort County Register of Deeds, DB 1193, pg. 1842). SP Forests subsequently transferred the property to International Paper Reality.

RESEARCH METHODS

Archaeological Field Methods

The survey methodology for this tract was devised after consulting the abundant previous studies in the immediate area, as well as examining the expected soils in the project vicinity. Previous research (see, for example, Bridgman and Hendrix 2001, Bridgman et al. 2000, and Fletcher et al. 1999) has gone to great lengths to document the extensive disturbance caused by silvacultural activities. These same features – evidence of deep plowing, ridges, and exposure of underlying subsoil – are also common characteristics of the study tract. Like the other tracts, this parcel has also been managed by International Paper and so the land use activities and planting methods are identical. Similarly, previous studies have noted the extensive areas of low, wet, poorly drained soils and their association with various densities of archaeological resources. We have previously explained that only a few areas of the study tract included well drained Seabrook sands, while the remaining soils were all poorly drained, often with a seasonal water table within a foot of the surface.

At other tracts in the vicinity, survey methodology included the use of shovel testing at 100 and 200 foot intervals (Bridgman et al. 2000 and Bridgman and Hendrix 2001) and even shovel testing in only some limited areas where disturbance was judged to be less severe (Fletcher et al. 1999).

As a result, we chose a hybrid approach where all transects were laid out at 100 foot intervals. Shovel tests on these transects alternated between every 100 feet and every 200 feet, so that there was equal coverage using both approaches. This is less intensive than shovel testing every 100 feet on every transect, spaced 100 feet apart, but is far more intensive than shovel testing at 200 foot intervals on transects spaced every 200 feet. This approach also allowed us to adjust the interval should better drained soils or areas of less disturbance be encountered. In those areas of well drained Seabrook soils the testing was conducted at 100 foot intervals. We believe that this is an appropriate strategy, given the poor drainage, level of disturbance, low site density reported by other investigators, and previous experiences available in the area.

All soil would be screened through ¼-inch mesh, with each test numbered sequentially by transect. Each test would measure about 1 foot square and would normally be taken to a depth of at least 1 foot or until sterile subsoil was encountered. If a distinct subsoil could not be identified, tests would be taken to a depth of at least 2.0 feet. All cultural remains would be collected, except for mortar and brick, which would be quantitatively noted in the field and discarded. Notes would be maintained for profiles at any sites encountered. A total number of 1,079 shovel tests were excavated (709 at 100-foot intervals, 345 at 200-foot intervals, and 25 additional tests for site 38BU1946) along 101 transects.

Should sites (defined by the presence of two or more artifacts from either surface survey or shovel tests within a 25 feet area) be identified, further tests would be used to obtain data on site boundaries, artifact quantity and diversity, site integrity, and temporal affiliation. These tests would be placed at 25 to 50 feet intervals in a simple cruciform pattern until two consecutive negative shovel tests were encountered. The information required for completion of South Carolina Institute of Archaeology and Anthropology site forms would be collected and photographs would be taken, if warranted in the opinion of the field investigators.

These proposed techniques were implemented with no significant modifications. A series of 101 transects were established running primarily east-west along the already existing

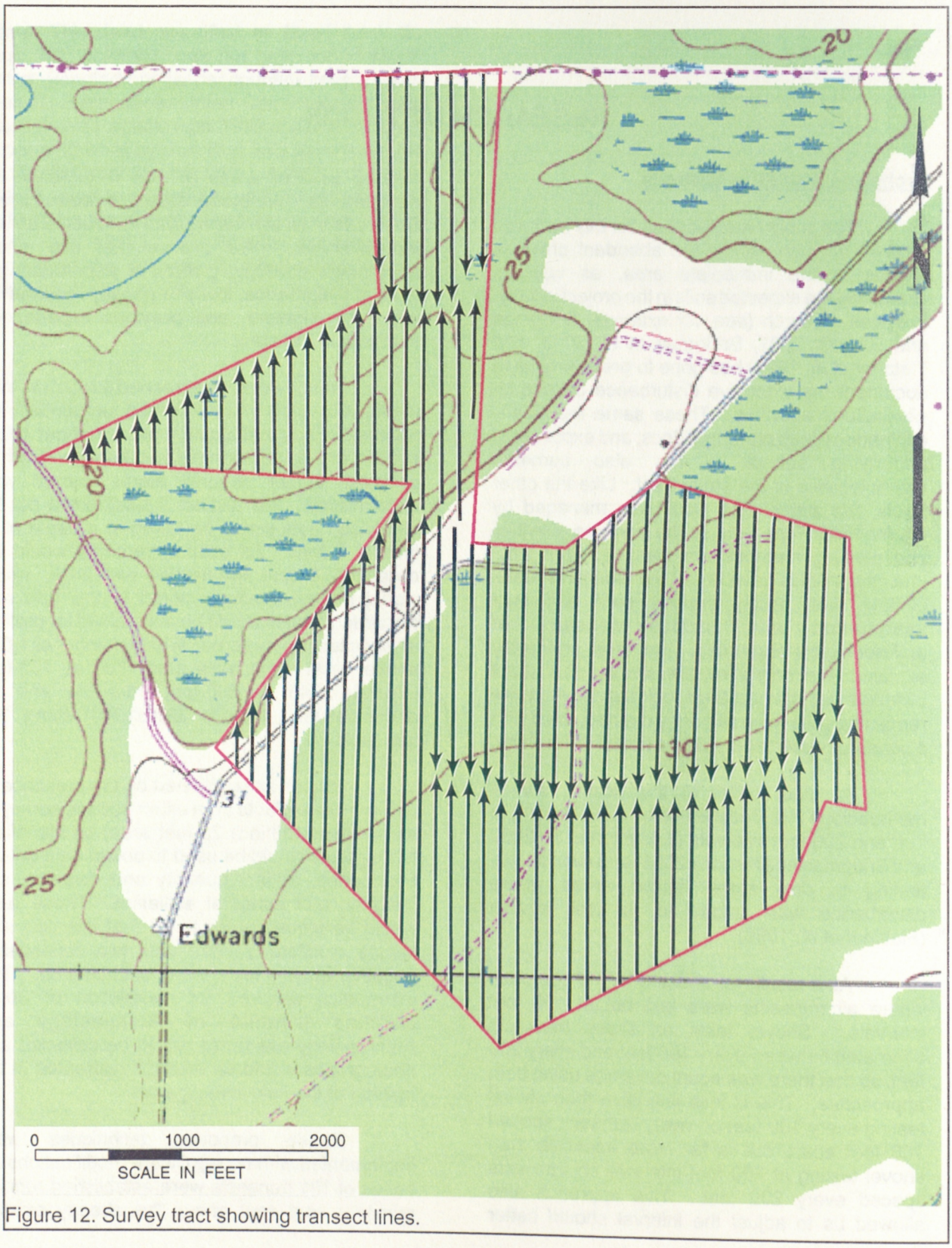

Figure 12. Survey tract showing transect lines.

logging roads. Individual shovel tests were numbered to the north and south along these transects. Virtually the entire portion of the 430 acres had been logged prior to the survey and had been replanted, resulting in a very young pine forest. Several underbrush varieties had grown up creating a surface visibility of only about 1-25% in most areas, although further into the forest, the vegetation was a little more sparse. The topography in this area was flat with no distinct ridge tops and extensive soil disturbance. Throughout the shovel tests revealed similar profiles typical of disturbed soils.

Site locations were identified using a Global Positioning System for the recordation of the UTMs. The GPS positions were taken with a Garmin GPS 12XL rover that tracks up to twelve satellites, each with a separate channel that is continuously being read. The benefit of parallel channel receivers is their improved sensitivity and ability to obtain and hold a satellite lock in difficult situations, such as in forests or urban environments where signal obstruction is a frequent problem. This was a vital consideration for the study area.

GPS accuracy is generally affected by a number of sources of potential error, including errors with satellite clocks, multipathing, and selective availability. Satellite clock errors can occur when the satellite's clock is off by as little as a millisecond, or when a slightly-askew orbit results in a distance error. multipathing occurs when the signal bounces off trees, chain-link fences, or bodies of water. Multipathing probably did not occur during this survey due to the fairly clear area where the artifacts were found. The source of most extreme GPS errors is selective availability (SA), which has been turned off by the Department of Defense.

Architectural Survey

As previously discussed, we elected to use a 1.0 mile area of potential effect (APE). The architectural survey would record buildings, sites, structures, and objects which appeared to have been constructed before 1950 and which retained their integrity. Those which have undergone such extensive modifications to preclude their eligibility were not recorded.

For each identified resource an architectural survey form would be completed and at least two representative photographs would be taken. Permanent control numbers would be assigned by the S.C. Department of Archives and History at the conclusion of the study. The site forms for the resources identified during this study would then be submitted to the South Carolina State Historic Preservation Office.

Site Evaluation

Archaeological sites will be evaluated for further work based on the eligibility criteria for the National Register of Historic Places. Chicora Foundation only provides an opinion of National Register eligibility and the final determination is made by the lead federal agency, in consultation with the State Historic Preservation Officer at the South Carolina Department of Archives and History.

The criteria for eligibility to the National Register of Historic Places is described by 36CFR60.4, which states:

> the quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and
>
> a. that are associated with events that have made a significant contribution to the broad patterns of our history; or
>
> b. that are associated with the lives of persons significant in our past; or
>
> c. that embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent

> a significant and distinguishable entity whose components may lack individual distinction; or
>
> d. that have yielded, or may be likely to yield, information important in prehistory or history.

National Register Bulletin 36 (Townsend et al. 1993) provides an evaluative process that contains five steps for forming a clearly defined explicit rationale for either the site's eligibility or lack of eligibility. Briefly, these steps are:

- identification of the site's data sets or categories of archaeological information such as ceramics, lithics, subsistence remains, architectural remains, or sub-surface features;
- identification of the historic context applicable to the site, providing a framework for the evaluative process;
- identification of the important research questions the site might be able to address, given the data sets and the context;
- evaluation of the site's archaeological integrity to ensure that the data sets were sufficiently well preserved to address the research questions; and
- identification of important research questions among all of those which might be asked and answered at the site.

This approach, of course, has been developed for use documenting eligibility of sites being actually nominated to the National Register of Historic Places where the evaluative process must stand alone, with relatively little reference to other documentation and where typically only one site is being considered. As a result, some aspects of the evaluative process have been summarized, but we have tried to focus on each archaeological site's ability to address significant research topics within the context of its available data sets.

Laboratory Analysis

The cleaning and analysis of artifacts was conducted in Columbia at the Chicora Foundation laboratories. These materials have been catalogued and accessioned for curation at the South Carolina Institute of Archaeology and Anthropology, the closest regional repository. The site form for the identified archaeological site has been filed with the South Carolina Institute of Archaeology and Anthropology. Field notes and photographic materials have been prepared for curation using archival standards and will be transferred to that agency as soon as the project is complete.

Analysis of the collections followed professionally accepted standards with a level of intensity suitable to the quantity and quality of the remains. In general, the temporal, cultural, and typological classifications of historic remains follow such authors as Price (1970) and South (1977).

RESULTS OF SURVEY

This investigation, in spite of intensive shovel testing, identified only one archaeological site – 38BU1946 – a twentieth century domestic scatter. It is likely that the sparse remains are the result of the extensive logging in the area and the distance to any permanent water source.

Several cultural resources surveys in the immediate area produced the same meager results (see Fletcher et al. 1999, Fletcher and Harvey 1999, and Bridgman and Hendrix 2001).

Archaeological Site

Site 38BU1946 is a twentieth century surface and subsurface domestic scatter located on an interior plain at an elevation of about 30 feet AMSL. The nearest source of permanent water is the May River located about 1.9 miles to the south. Topography in the area is flat with no significant ridge tops.

Typical vegetation in the area is a planted pine forest with areas of young hardwoods and thick understory species. The site itself is situated in a predominately pine forest area, but with more mature hardwoods than other areas of the survey tract. A central UTM coordinate for 38BU1946 is E509884 N3568827 (NAD27 datum). The site is accessible from a logging road which extends about 3,000 feet west to Buckwalter Parkway.

Transects 84 and 85 ran through the site and were tested at 100 foot intervals. Three of the six tests in the immediate area (T84, ST 2; T85, ST 1; T85, ST 2) were positive. The site was actually more visible as a sparse surface scatter in the dirt roadbed. Once the initial shovel testing program was completed, this site was further explored using shovel tests at 50-foot intervals to form a simple cruciform pattern until two consecutive negative tests were encountered. A series of 31 additional tests were eventually excavated in the site area, with nine producing artifacts. Based on this dispersion of positive shovel tests, coupled with the scattered remains in the roadbed, the site's dimensions are

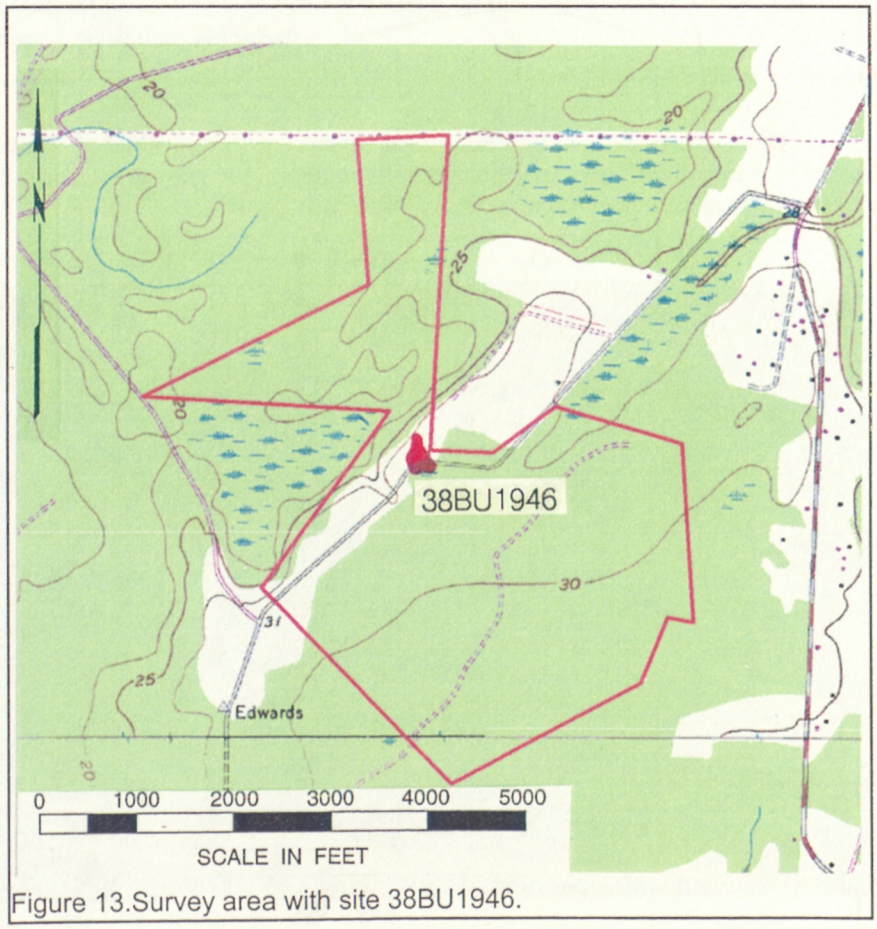

Figure 13.Survey area with site 38BU1946.

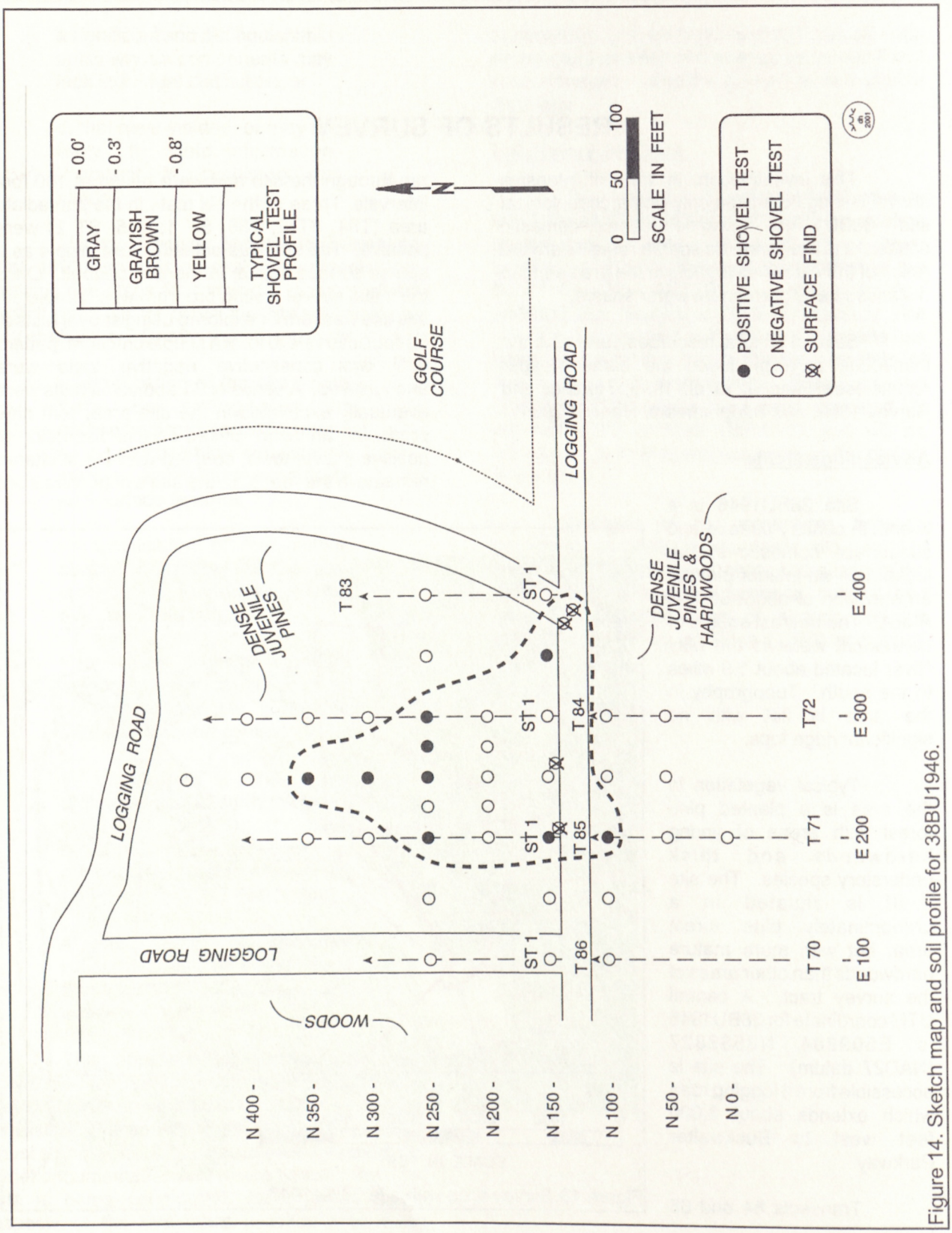

Figure 14. Sketch map and soil profile for 38BU1946.

Table 1
Artifacts Recovered from 38BU1946

	Glass										
Prov.	Clr	Mn	LG	Brn	Mlk	Wd	WW	Mt	Slt	Bk	Sh
N100 E200	1						2				Y
N150 E200							2				Y
N150 E350										Y	
N250 E200		1			1		3				Y
N250 E250		2									
N250 E275							3				Y
N250 E300				1							
N300 E250			1								Y
N350 E250	1										Y
Surface	6	3	1			1	8	1	1	Y	Y

Key:
Clr=clear; Mn=manganese; LG=light green; Brn=brown; Mlk=milk; Wd=window; WW=whiteware; Mt=UID metal; Slt=slate fragment; Bk=brick; Sh=shell

estimated to be 150 feet east-west by 250 feet north-south.

All of the shovel tests revealed Seabrook sands, with an Ap horizon of gray to dark grayish brown (10YR4/2) sand to a depth of about 0.8 foot over a light yellowish brown (10YR6/4) sand, with excavations taken to a minimum depth of 1.2 feet.

The combined shovel testing and surface collection yielded 39 specimen (see Table 1), not including the brick and shell (which were noted, but discarded in the field). Glass specimen account for 19 of the 39 items. Of these the clear glass specimen are all modern and the

Figure 15. View of a portion of 38BU1946.

manganese glass was most common from the last quarter of the nineteenth century until World War I (Jones and Sullivan 1985:13). The site also yielded 18 fragments of whiteware – all undecorated. This ceramic has a very wide date range, but the materials present are also suggestive of a site from the last quarter of the nineteenth century on.

There is no indication of this site, either on various historic maps or in the historic research. Nevertheless, it appears to represent a tenant or other low-status domestic dwelling during the very late nineteenth century into perhaps the middle of the twentieth century. There is relatively little data concerning these sites in this portion of Beaufort County. The site's possible association with forestry activities also presents a range of potentially significant research questions.

In spite of the possible questions, the site exhibits little integrity – hence little ability to address these questions. The primary factor affecting the site has been the extensive – and very damaging – forestry activities. The planting and harvesting of pines has caused dramatic subsurface damage. It is unlikely that any intact remains exist. Consequently, we recommend the site as not eligible for inclusion on the National Register of Historic Places. No additional management activities are recommended, pending the review and concurrence by the lead federal agency and the State Historic Preservation Office.

Architectural Sites

The public roads within a mile of the project area were driven. Many of these (for example, Buckwalter Blvd.) are modern and there are no structures present older than about 1999. The failure to identify any historic sites in the APE is entirely consistent with the previous comprehensive county-wide survey (Harvey et al. 1998).

CONCLUSIONS

This study involved the examination of 430 acres of land for the development of the Centex Buckwalter neighborhood in southern Beaufort County, South Carolina. Activities on the tract will include extensive clearing, grubbing, grading, construction of utilities, and erection of homes. This study, conducted for Centex Homes, provides the results of that investigation and is intended to assist that organization comply with the historic preservation responsibilities associated with permitting the facility.

The survey consists of an area which has been extensively logged and replanted with a pine forest. Today most of the tract consists of rows of pines interspersed with dense understory and young hardwoods. A golf course borders the eastern portion of the tract, a transmission line is to the north, and the western portion of the survey area is adjacent to a wetland area. Several logging roads run throughout the project area. The area exhibits flat topography with no distinct ridge tops. Previous logging activities are visible throughout the survey tract as mixed soils, extensive and deep plowing, and the creation of ridge on trough topography for planting.

There were three previously identified archaeological sites in the APE. 38BU1589 and 38BU1590 represent early twentieth century scatters while 38BU1833 contained both eighteenth century artifacts and Middle to Late Woodland ceramics.

One archaeological site (38BU1964) was identified during the surface survey and shovel testing. 38BU1964 is located on an existing logging road and into the adjacent pine forest. Additional shovel testing revealed an area of about 37,500 square feet. The site is recommended not eligible for inclusion on the National Register of Historic Places and no additional management activities are recommended.

The surrounding areas are still fairly rural, although the area is being quickly developed for residential neighborhoods. There were no previously identified architectural sites in the project APE, and a survey of the 1.0 mile radius confirmed these findings.

It is possible that archaeological remains may be encountered in the area during construction. As always, the utility's contractors should be advised to report any discoveries of concentrations of artifacts (such as bottles, ceramics, or projectile points) or brick rubble to the project engineer, who should in turn report the material to the State Historic Preservation Office, or Chicora Foundation (the process of dealing with late discoveries is discussed in 36CFR800.13(b)(3)). No further land altering activities should take place in the vicinity of these discoveries until they have been examined by an archaeologist and, if necessary, have been processed according to 36CFR800.13(b)(3).

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